

REMARKS/ARGUMENTS

I. Summary of the Office Action

Claims 1-9 and 16-29 were rejected under 35 U.S.C. § 103 as obvious from EP 1041496 (Lita) in view of U.S. published application US 2002/0007415) (Douglin).

Claims 10-15 were indicated as being allowable if rewritten so as not to depend from a rejected claim, and with no change in scope.

II. Summary of this Reply

Applicants have carefully reviewed the above identified application in light of the Office Action dated August 31, 2005. Claims 1-29 remain presented for examination, with claims 1 and 16 being the only independent claims. Claims 1 and 16 have been amended to define still more clearly what Applicants regard as their invention, in terms which distinguish over the art of record.

III. Response to §103 Rejections

Claim 1 recites a method for maintaining session affinity in a server farm coupled to receive client requests, said server farm comprising multiple server groups, each server group comprising multiple clone servers. This method comprises associating a collection of related client requests with a unique session identification code. The method further comprises associating with said collection of requests sharing a session identification code a list of every server in said server farm that has serviced a request in the collection. Upon receipt of a client request, the method further comprises determining to which of said server groups the request can be dispatched. Further, upon receipt of a client request which contains a session identification code, the method further comprises determining if said list associated with the received session identification code includes a server identification code that matches a server identification code of a server in said determined server group; and if a match is detected, dispatching said client request to said matched server.

Thus, the present invention, as defined by claim 1, relates to a method of using information pertaining to previous client requests which are grouped under a session

identification code. This information includes a list of servers that serviced those requests. The method comprises using the session identification code of a newly received request to assign an available server which has processed a related client request.

In paragraph 2 of the Office Action, it states the “Examiner can not find anywhere in the claim language that the session identification code is associated to servers that have been utilized in that session.” Applicant is somewhat unclear as to what the Examiner intended by this remark. A session identification code is described in the specification (page 7, lines 14-21) as defining a set of related requests within a certain period of time, i.e., within a session. Claim 1 recites “(3) associating with said collection of requests sharing a session identification code a list of every server in said server farm that has serviced a request in said collection.” Thus a correspondence is established between a session identification code and a list of servers that have serviced a request in the collection of related requests.

Applicant has amended subparagraph (4) of claim 1 to state that the session identification code is used to identify a list of servers (that have service a related request). If a match is detected between a server on this list and a server in a determined server group, the client request is dispatched to that server. In this manner, a current client request is matched against a collection of servers that have addressed related client requests.

As understood by Applicants, Lita relates to a method for managing connection requests to a pool of servers identified by a given URL. Using a session identifier, a “virtual” URL is generated that redirects the connection request to a given server. Any additional connection requests issued from the given client machine during the session request are redirected to the given server so that all content is served to the client from the same location. When the session terminates, the virtual URL is inactivated and the given server is returned to the pool so that it can then be assigned a new user session to manage.

Lita assigns a server to a session for its duration (e.g., “a given user may ... be assured that all such transactions are managed by the same server” col. 9, lines 52-55). Further, Lita creates a table 55 for each server for “storing session identifiers of the sessions being managed by that server” (col. 7, 50-55). The Office Action sites this same passage of Lita as teaching the feature of claim 1 that, for a collection of requests sharing a session identification code, a list is created of every server in said server farm that has serviced a request. Clearly these lists are distinguishable as claim 1 establishes a correspondence from a session identification code to

servers that have serviced related requests. Lita does not teach or suggest a plurality of servers associated with a session identification code. Rather, as noted above, this table identifies session identification codes that have been managed by a particular server.

This distinction is not mere semantic as this feature of the present invention permits use of alternative servers when appropriate. By way of example, page 19 of the application addresses how this feature of the invention enables an alternative clone server, 14₁ to service a request when the previously utilized clone 14₃ is down (2nd paragraph) and further, how the invention would return to clone 14₃ once it came up again (4th paragraph).

As understood by Applicants, Dougkis relates to a method of providing content distribution services while minimizing processor time required for security protocols. As illustrated in his Fig. 4, Dougkis utilizes a table that includes a field for the client network address, one or more fields for identifying the cache server ... and a timer file to permit the entries to expire after some specified period of time” (page 3, paragraph 24). Dougkis has a specific application wherein “subsequent packets received from the client related to a particular secure connection, for a period of time up until the entry in the table expires, should be directed back to the same server that maintains the state information” (page 3, end of paragraph 24).

Applicant submits that it is inappropriate to combine Lita with Dougkis in the manner performed in the Office Action as the tables defined in each respective reference are incompatible with each other. Further, even if the combination were proper, it still does not yield the claimed feature of the invention wherein the list of servers in the present invention is utilized to find a match with a server having the proper identification code from those servers in a server group in a system that has multiple server groups. Dougkis merely uses his table to “direct subsequent packets to the same server that maintains the state information for the SSL connection”, and does so for a limited period of time (page 3, last sentence of paragraph 24).

Applicants submit that the prior art of Lita and Dougkis, either singly or in combination fails to teach or suggest the features of the present invention as defined by independent claim 1. In particular, they fail to teach the feature that a collection of requests sharing a session identification code is associated with a list of every server in said server farm that has serviced a request in said collection. In fact, both Lita and Dougkis teach away from the creation of such a list as their respective inventions emphasize the benefits attained by their inventions in using only one server.

For at least these reasons, Applicant submits that claim 1 is patentable over Lita and Dougkis. Claim 16 contains similar features to those of claim 1 and is patentable for the same reasons.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above as references against independent claims 1 and 16. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In particular, with respect to claim 2 Applicants submit that the claimed feature of adding a unique server identification code corresponding to said server to a list of server identification codes associated with said session, without deleting any other server identification codes in said list is not taught by either Lita or Dougkis, either singly or in combination. In particular, Fig. 4 of Dougkis and the corresponding discussion at paragraph 24 of the specification only discuss identification of the cache server. Both Lita and Dougkis teach the use of only one server identification code in their respective tables – they are silent, and in fact teach away from the feature of claim 2 where additional server identification codes are place on the list without deleting previous entries.

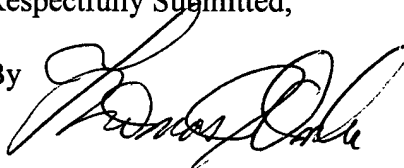
CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully Submitted,

By

A handwritten signature in black ink, appearing to read "Thomas J. Onka", written over a horizontal line.

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